

PAPERS READ.

NEW AUSTRALIAN-FISHES IN THE QUEENSLAND  
MUSEUM.

BY CHARLES W. D. VIS, M.A.

SERRANUS SUBFASCIATUS.

D. 11/15. A. 3/8. Lat. 105. Tr. 14/24.

The height of the body is  $\frac{5}{16}$  to  $\frac{5}{19}$  of the total length. The length of the head  $\frac{3}{10}$  of the same. The orbit is  $\frac{1}{5}$ ; snout,  $\frac{1}{4}$ ; interorbit  $\frac{1}{8}$  of the length of the head.

Profile of body and head above regularly convex, slightly indented over the centre of the orbit; caudal rounded. Soft dorsal and anal higher than the spinous dorsal, obtusely pointed. Muzzle obtuse. Three opercular spines, the middle one the largest. Pre-opercular serrations gradually increasing in size from the top of the hinder limb and suddenly expanding at the angle. The upper maxillary reaches beyond the level of the hinder edge of the orbit. Second anal spine much stronger than the third. Pectoral rather longer than the ventral, distant from the anal. Scales enlarging gradually posteriorly. Colour purplish brown, with indications of darker transverse stripes on the post-abdomen and caudal peduncle. A series of short dark bars descending forwards from the base of the dorsal, no spots nor black edge on the caudal.

Length, 8 inches. Locality, Cardwell.

This species has no near alliance with any co-member of its section of the genus. It must however, be observed, that one of them, *S. oceanicus*, C. & V. is considered by Mr. Macleay to be identical with Bleeker's *marginalis*, which again is identified by

Dr. Bleeker with his *Epinephelus fasciatus*. It is therefore possible that sub-fasciatus may be yet another form of the one species, but its very small scales and its markings render it improbable.

SERRANUS MARS.

D. 9/15. A. 3/8,

The height of the body is  $3\frac{1}{2}$  in the length of the body, s.c. ; the length of the head  $2\frac{3}{5}$  in the same length. The orbit is  $4\frac{3}{4}$  ; inter-orbit,  $3\frac{3}{5}$  and snout  $3\frac{1}{2}$  in the length of the head. The second anal spine is  $\frac{1}{3}$  of the length of the head.

Caudal rather emarginate. The upper maxillary reaches far beyond the level of the hinder edge of the orbit. The profile of the head is convex, very slightly indented in front of the upper edge of the orbit. The muzzle is pointed. First dorsal lower than the second and the anal ; both the latter obtusely pointed. Opercle with three spines, the middle one much the largest ; pre-opercle minutely denticulated on the hinder limb towards and upon the angle. Canines  $\frac{2}{5}$ , the upper distant ; the other teeth long, especially in the inner row below and the innermost of the maxillary groups. Pectoral long, reaching nearly to the base of the anal. Second anal spine longer and much stronger than the third. Scales deciduous.

Colour uniform dark brown. Caudal with an oblique white bar on each lobe converging backwards. Soft dorsal and anal with a pale intra-marginal band.

Closely allied to *S. urodelus*, Cuv., but without any traces of spots on the pale edged fins. Other distinctive characters are a longer head and eye, and a concave caudal.

Length, 7 inches. Locality, Cardwell.

SERRANUS MYSTICALIS.

D. 11/16. A. 3/8. Lat. 100. Tr. 12/30.

The height of the body is rather less than  $\frac{1}{4}$  of the total length, the length of the head is  $\frac{3}{4}$  of the total. The orbit is  $\frac{1}{4}$ , the inter-orbit  $\frac{1}{5}$ , and the snout  $\frac{2}{7}$  of the length of the head.

Caudal rounded. The upper maxillary does not reach the level of the posterior margin of the orbit. The profile of the head is deeply indented in front of the eyes. The muzzle is rather obtuse. The fourth, fifth and sixth spines of the first dorsal the longest,  $2\frac{1}{4}$  in the height of the body in front of the pectoral. Opercle with three spines, of which the middle one is much the strongest. Pre-opercle with sub-equal obtuse comblike denticulations, shortened above the angle, broader and more tooth-like at the angle. Soft dorsal and anal rounded at the tip, equal in height to the spinous dorsal. Second anal spine longer than the third. Pectoral much longer than the ventral, nearly reaching the anus.

Colour uniform pale brown, two broad bands along the dorsals, one at the base, the other in the middle, faintly indicated. Edge of the jaws and a line on the cheek bordering the upper edge of the maxillary black.

Length, 8 inches. Locality, Queensland Coast, habitat ?

The nearest ally of this fish is *S. moara*. Temm. and Schleg. of the Japanese Seas. It is differentiated by the absence of any marking on the body and the presence of black lines on the head.

GENYOROGÉ NOTATA, VAR. C. AND V. SUBLINEATA.

D. 10/13. A. 3/8. Lat. 49. Tr. 8/13.

The ascending lines above the lateral line wanting. The upper stripe is along the lateral line, and passes through the black blotch. The one below it also passes within the edge of the spot.

Length,  $7\frac{1}{2}$  inches. Locality, Cardwell.

GENYOROGÉ NIGRICAUDA.

D. 10/15. A. 3/8. Lat. 48.

The height of the body equals the length of the head, both being  $3\frac{1}{2}$  in the total length. The snout equals the orbit, both being  $3\frac{1}{2}$  in the length of the head; interorbit  $5\frac{1}{2}$  in the same. The preoperculum is finely serrated on both limbs, and has a moderate notch above the angle. Caudal strongly emarginate.

Colour yellowish grey. Caudal nearly black with a very narrow white edge. Soft dorsal and webs of spinous dorsal behind the first two broadly black edged, the extreme edging being pale.

Length, 4 inches. Locality, Queensland coast.

In structural characters approaching *G. Bengalensis*.

PRIACANTHUS JUNONIS.

D. 10/13. A. 3/14. Lat. 87. Tr. 42.

The height of the body is one-fourth of the total length. The length of the head,  $3\frac{1}{3}$  in the same; orbit,  $2\frac{1}{3}$ ; snout 3 in the length of the head; interorbit,  $\frac{1}{2}$  of the orbit and  $\frac{3}{14}$  of the length of the head. Lateral line indistinct on fore-part of the body only. The posterior nostril is more than twice as long as broad with its posterior side straight, its anterior convex. The operculum has one spine. The preoperculum is serrated on both limbs, and has a long flat serrated spine at the angle. Dorsal spines nearly equal, the second not much shorter than the last, roughly striated. The ventrals reach to the base of the anal, but are considerably shorter than the head. The maxillary reaches the anterior fourth of the orbit. Colour uniform yellowish grey, (dry) without spots or edgings.

Length, 5 inches. Locality, Queensland coast.

HEROPS. Nov. gen.

Teeth on vomer and palatine bones; in jaws viliform, without canines. Eye very large. Operculum spiniferous. Preoperculum serrated, without spines. One dorsal deeply notched; dorsal and anal sheathed. Lateral line continuous; gape very oblique. Habit elevated, compressed. Branchiostegals six. Upper surface of head naked.

H. MUNDA.

D. 10/11-12. A. 3/11. Lat. 51. Tr. 5/11.

The height of the body is  $3\frac{1}{4}$  to  $3\frac{1}{2}$ ; the length of the head 4 in the total length. The orbit nearly  $\frac{1}{2}$ , the snout and interorbit each  $\frac{1}{4}$  of the length of the head.

Lower profile more convex than the upper. The upper edge of the orbit rises above the interorbital surface. Operculum with two spines subequal or the lower one elongated. Preoperculum finely serrated on both limbs. Caudal forked; 5th and 6th dorsal spines the longest, one half the height of the body. 2nd anal spine equal in length but stronger than the 3rd.

Colour uniform silvery, on the dorsum with a bluish steel tint. Caudal broadly dark edged all round.

Length, 5 inches. Locality, Cardwell.

The naked head, associated with comparatively large scales, and a preoperculum entirely without spines have led to the proposal to form a genus for this Priacanthine fish.

PSEUDAMBASSIS NIGRIPINNIS.

D. 7, 1/8. A. 3/9. Lat. 29. Tr. 11.

The height of the body is  $2/5$ , the length of the head  $1/3$  of the length, s.c. The orbit  $2\frac{3}{4}$ , the snout and interorbital each  $3\frac{1}{4}$  in the length of the head. The 2nd dorsal spine is half the height of the body. Preorbital serrations feeble. Lower limb of preoperculum very feebly serrated, but with two or three strong teeth at the angle. Profile equally convex above and below, slightly concave over the orbit. Head and foreparts thick.

Colour fleshbrown, with a silvery mesial line. The scales of the back edged with black spots; soft dorsal and anal, more or less, largely black tipped; web between 2 and 3 dorsal spines densely black dotted.

Length,  $1-1\frac{3}{4}$  inches. Locality, Brisbane.

Besides the black edged scales and black tipped fins this little fish has a larger head and broader interorbit than *P. Ramsayi*, with which it is associated in fewer numbers in the Brisbane River.

PSEUDAMBASSIS PALLIDUS.

D. 7, 1/8. A. 3/8. Lat. 25. Tr. 9.

The height of the body is  $2\frac{1}{2}$ ; the length of the head  $2\frac{3}{4}$  in the length, s.c.; orbit  $1/3$ , snout and interorbit each  $1/4$  of the length of the head. Second dorsal spine more than  $2/3$  of the height of the

body. Preorbital strongly serrated, lower limb of preoperculum strongly serrated. Dorsal profile elevated, angular, highest at the insertion of the dorsal. Head rather large and compressed.

Colour uniform pale brown ; spotless.

Length,  $1\frac{3}{4}$  inches. Locality, Queensland.

Allied to *P. Macleayi*, but with lower fins and smaller eye ; its form is also less elevated.

#### PSEUDAMBASSIS CONVEXUS.

D. 7,1/6. A. 3/8. Lat. about 22. Tr. about 11.

The height of the body is  $2\frac{1}{3}$  ; the length of the head 3 in the length, s.e. ; orbit 3 ; snout and interorbit each  $3\frac{1}{2}$  in the length of the head. Second dorsal spine  $\frac{2}{3}$  of the height of the body ; 2nd dorsal longer than 3rd and 2nd anal longer than 3rd. Form, sub-pyriform compressed, rather deep. Lower profile more convex than the upper.

Colour bright flesh pink, spotless ; cheek pearly.

Length, 1 inch. Locality, Queensland.

In many characters similar to *P. nigripinnis*, but longer dorsal and anal spines and without markings.

#### APOGON SIMPLEX.

D. 7, 1/9. A. 2/8. Lat. 25. Tr. 9.

The height of the body and the length of the head each  $3\frac{1}{2}$  in total length ; the orbit  $2\frac{1}{4}$  ; interorbit  $3\frac{1}{2}$  ; and snout 5 in the length of the head. The 3rd and longest dorsal spine  $2\frac{1}{2}$  in the height of the body, and equal to the length of the 2nd anal. The preoperculum is minutely serrated, the maxillary reaches the hinder fourth of the orbit. The first dorsal is low, the 2nd dorsal and the anal elevated. Caudal peduncle long and tapering.

Colour uniform vinaceous grey, operculum pearly.

Length,  $2\frac{1}{2}$  inches. Locality, Cooktown.

## APOGON RUDIS.

D. 7, 1/9. A. 2/8. Lat. 24. Tr. 2/6.

The height of the body and length of the head are each  $3\frac{1}{5}$  of the total length; the orbit is  $2\frac{2}{3}$ , interorbit  $4\frac{1}{2}$ , and snout 5, of the length of the head. The hind limb and half of the lower limb of the preopercle denticulated; the maxillary reaches the hinder third of the orbit. The first dorsal is nearly as high as the second.

Colour uniform yellowish brown. A broad black band at the base of the second dorsal; the first dorsal faint dusky.

Length, 5 inches. Locality, Cardwell.

## APOGONICTHYS LONGICAUDA.

D. 6, 1/9. A. 2/9. Lat. 38. Tr. 3/13.

Height of the body,  $3\frac{3}{8}$ , and length of the head  $3\frac{1}{4}$  in the total length, or  $2\frac{3}{4}$  and  $2\frac{2}{5}$  respectively in the length, s.e. Orbit 4, snout  $3\frac{1}{2}$ , inter-orbit 5, in the length of the head. The length of the caudal peduncle equals the height of the 2nd dorsal spine, and is one-half greater than its own height. The 1st dorsal spine is more than half the height of the body. The upper maxillary reaches nearly to the vertical from the hinder edge of the orbit, 2nd dorsal spine shorter than the 1st. Uniform brownish (dry.) Cheeks and opercle finely brown-sprinkled; edge of the first dorsal, second dorsal and anal finely black dotted. A few brown dots on the body and fins.

Length, 4 inches. Locality, Queensland.

## HOMODEMUS. Nov. gen.

Six Branchiostegals, one dorsal with eleven spines, anal with three. No canines. Teeth on vomer, palatines and jaws. Outer row of jaw teeth larger, all villiform. No teeth on the tongue. Operculum with an obtuse point, entire. Pre-operculum entire. Scales small. Lower jaw the longer.

## HOMODEMUS CAVIFRONS.

D. 11/16. A. 3/13.

The height of the body and length of the head are each  $2\frac{2}{3}$  in the length of the body, s.c. Orbit  $7\frac{1}{2}$ , inter-orbit  $4\frac{1}{2}$ , and snout 4, in the length of the head; 5th dorsal spine about  $\frac{1}{4}$  of the height of the body.

Profile gibbous at the insertion of the dorsal, concave over the head. Head broad behind, muzzle depressed. The maxillary reaches beyond the hinder edge of the orbit. Dorsal deeply notched, the spinous portion rather lower than the soft and the anal. Caudal rounded. Fifth dorsal spine the longest. Second anal equal in length to the third but much stronger. Scales rounded, obscurely ctenoid.

Colour brown, without markings.

Length, 14 inches. Locality, Tully River.

## DULES HUMILIS.

D. 10/11. A. 3/11. Lat. 50. Tr. 5/10.

Height of the body one-third, and length of the head  $\frac{1}{4}$  of the total length. Orbit 3, inter-orbit and snout each  $3\frac{3}{4}$  in the length of the head.

The dorsal is deeply notched, its 4th and 5th spines longest, and equal to more than one-half the height of the body. Habit high, compressed with the upper profile rather gibbous at the origin of the first dorsal, and slightly concave over the head. Caudal deeply emarginate. Second anal spine as long as and stronger than the third. Operculum with two small points. Pre-opercle finely serrated. Eye large. The maxillary reaches the anterior fourth of the orbit.

Colour silvery, immaculate, darker on the back. Caudal broadly dark-edged all round.

Length, 4 inches. Locality, Queensland.



## HELOTES PROFUNDIOR.

D. 12/10. A. 3/9. Lat. 90. Tr. 17/36.

The height of the body is nearly 4, the length of the head  $5\frac{1}{2}$  in the total length of the body. Orbit 4, snout 3, in the length of the head. Teeth distinctly lobed. Mandibles with a line of open pores continuous round the symphysis. Operculum with two flat points, the upper one small, the lower (on one side) elongate. Upper limb and angle of pre-opercle serrated, coracoid denticulated. The maxillary reaches the vertical from the posterior nostril. Spinous dorsal arched, the 5th spine the longest. Anal spines short and weak. Caudal emarginate. Snout obtuse, tumid over the nasal region.

Colour pinky brown with golden reflexions especially on the head. Four dark brown longitudinal lines on the head and body.

Length, 6 inches. Locality, S. Australia.

The comparative depth of this fish and the narrowness of its scales are characters sufficiently distinctive. The longitudinal lines are indistinct in the spirit specimen, in the recent fish there may be more than four visible.

## THERAPON SPINOSIOR.

D. 14/8. A. 3/8. Lat. 56. Tr. 4/12.

Height of the body,  $\frac{3}{10}$  and the length of the head  $\frac{1}{4}$  of the total length. Orbit and snout each  $3\frac{1}{3}$  in the length of the head.

Habit oblong. Upper profile regularly convex from tail to tip of snout. Dorsal and caudal moderately emarginate. The upper maxillary reaches the level of the interval between the nostrils. Angle of the pre-operculum rounded, its hinder limb obtusely serrated, more acutely at the angle. Opercular spine moderate with a deep notch above it.

Colour yellowish brown, with a brighter band along the middle of each scale. Fins uniform.

Length, 4 inches. Locality, Queensland.

## THERAPON ACUTIROSTRIS.

D. 12/10. A. 3/8. Lat. 60. Tr. 8/18.

The height of the body is 3, and the length of the head  $3\frac{3}{4}$  in the total length. The orbit and snout are each 3, the inter-orbit,  $4\frac{1}{2}$  in the length of the head.

Dorsal moderately emarginate. Caudal slightly so. The upper profile angular, that of the head nearly straight from the dorsal. Muzzle sharp. Pre-orbital serrated. The serrations of the hinder limb of the pre-operculum gradually increasing in length downwards. Operculum with two spines. The 4th and 5th dorsal spines the longest; the 2nd anal longer and stronger than the third. Dorsal spines and 2nd anal very strong.

Colour light silvery blue with three longitudinal stripes on the body, the middle running from the snout over the eyebrow to the tail. Web of the dorsal edged with black. Fins otherwise uniform. In one example the back above the upper stripe is nearly as dark as it, rendering it indistinct.

Length, 4 inches. Locality, Queensland.

Allied to *T. oxyrhynchus*.

## AUTISTHES. Nov. gen.

Persistent vomerine teeth; body oblong; jaws subequal; one dorsal deeply notched, with 12 strong spines. In each jaw an outer series of stout conical teeth. All the bones of the head armed, operculum with a strong spine. Scales small, three strong anal spines, eye large, no groove behind the chin nor pores on the mandibulus.

## AUTISTHES ARGENTEUS.

D. 12/10. A. 3/8. Lat. 85. Tr. 14/26.

The height of the body is less than one-fourth of the total length and equals the length of the head, including the opercular spines. Orbit  $3\frac{2}{3}$ , and snout (=interorbit)  $3\frac{1}{3}$  in the length of the head; 4th dorsal spine (the longest)  $\frac{2}{3}$  of the same.

Pre-orbital and inter-operculum finely denticulated, preoperculum on both limbs strongly crenulo-dentated; operculum, with two points, the upper almost obsolete, the lower elongate, dagger

shaped ; coracoid large, crenulo-dentated ; scapulary more faintly armed, but reaching nearly to the vertex ; superorbital radiately grooved ; scales thick, ctenoid ; caudal strongly emarginate ; 4th dorsal spine more than twice as long as the third, 8th longer than the 7th, spinous dorsal much higher than the soft or the anal ; pectoral short, 3rd anal spine the longest ; the upper maxillary reaches beyond the fore edge of the orbit.

Colour silvery. Upper two-thirds of webs of 4th and 7th spines of dorsal, tips of first three rays of soft dorsal, end of upper caudal lobe and a large spot on the tips of its submedial rays black.

Length, 12 inches. Locality, Queensland Coast.

#### HEPHESTUS. Nov. gen.

Form of body rather elevated ; eye rather small ; mouth horizontal, the lower jaw rather the shorter ; 1 dorsal with 12 spines, the anal with 3 ; caudal fin emarginate. No canine, palatal, nor vomerine teeth. Preoperculum denticulated, operculum with obtuse points ; scales moderate, ctenoid ; 6 branchiostegals ; pseudo branchiæ and air bladder. (?)

#### H. TULLIENSIS.

The height of the body is  $2\frac{1}{2}$  ; the length of the head  $3\frac{1}{2}$  in the total length ; the orbit  $4\frac{1}{2}$ , interorbit  $3\frac{1}{2}$ , snout 3 nearly, in the length of the head. The 5th dorsal spine  $\frac{1}{4}$  nearly of the height of the body. Form very convex above, profile of the head concave ; 1st dorsal lower than the 2nd or the anal, both the latter rounded at the tip. Pectorals short, rounded ; coracoid and scapulary finely denticulated. Preopercle entire on lower limb, angle rounded ; 4th and 6th dorsal spines the longest. The 2nd anal equals the 4th dorsal, and is a little longer and much stronger than the 3rd. Soft dorsal, anal and caudal scaly at the base. Outer row of teeth strong, incurved.

Colour uniform blackish, soft dorsal, anal and caudal black, narrowly edged with white.

Length, 9 to 12 inches. Locality Tully and Murray (Queensland) Rivers. Feeds on *Zostera*.

This genus, if warranted by the characters given, will come near *Lobotes*.

*GERRES SPLENDENS.*

Lat. about 48. Tr. about  $3\frac{1}{2}/9$ .

The height of the body is  $2\frac{3}{4}$ ; the length of the head  $3\frac{1}{3}$  in the length, s.c.; orbit  $2\frac{3}{4}$ , snout and interorbit each rather more than  $\frac{1}{3}$  of the length of the head. The 3rd dorsal spine is more than  $\frac{1}{2}$  of the height of the body; the 2nd anal more than  $\frac{1}{2}$  of the 3rd dorsal and longer than the 3rd anal. Scales persistent, most of those on the back crenulated in the centre. Preorbital emarginate, first dorsal subfalciiform, the upper profile is regularly convex, the lower straight, and the belly flattened between the ventrals. Hind limb of the preopercle nearly vertical, and its angle rounded. Sheath of dorsal fin moderate.

Colour uniform silvery with blue and gold reflections. The edge of the dorsal black.

Length,  $7\frac{1}{2}$  inches. Locality, Cardwell.

*SCOLOPSIS PLEBÆIUS.*

D. 10/9. A. 3/7.

The height of the body is  $3\frac{1}{4}$ , the length of the head  $4\frac{1}{4}$  in the length, s.c.; orbit  $2\frac{1}{2}$ , interorbit 3, snout  $3\frac{1}{3}$  in the length of the head. The height of the preorbital is  $\frac{2}{5}$  of the orbit, on the edge of the orbit a single preorbital spine, with two feeble denticulations beneath it on one side, not on the other, hind limb of preoperculum vertical and strongly serrated, its produced angle bears 3 large flat denticulations. The 3rd anal spine is equal in length to the 2nd, but is much weaker. Upper profile gibbous over the nape.

Colour pale brown. A line of oval white spots at the base of the first dorsal and anterior half of second running out along the middle of the second. On the last five webs of the first and first of the second dorsal a black spot between the white one and the base of the spine.

Length, 6 inches. Locality, Queensland.